LISTING OF CLAIMS

1. (currently amended) A method for energy-saving operation of a dishwasher ~~(110; 410), in particular for washing dishes (9; 414) or medical appliances~~, with the dishwasher ~~(110; 410)~~ having a total number $N \geq 2$ of electrical load elements ~~(14, 15, 18, 19, 22, 23, 26, 33; 418, 420, 432, 438)~~, having the following steps:

a) a group of n electrical load elements ~~(14, 15, 18, 19, 22, 23, 26, 33; 418, 420, 432, 438)~~ is assigned a maximum electrical total power p_{max};

b) each electrical load element i in the group of n electrical load elements ~~(14, 15, 18, 19, 22, 23, 26, 33; 418, 420, 432, 438)~~ is assigned a finite number m_i of discrete electrical power levels p_{ij} where $m_i \geq 2$:

- with there being a maximum power level p_{imax} for each i, where $p_{ij} \leq p_{imax}$,
- where the sum of all maximum power levels p_{imax} form a worst total power

$$p_{worst} = \sum_{i=1}^{n} p_{imax}$$ where $p_{max} < p_{worst}$, and

- where a regular power level p_{ireg} exists for each i, where $0 < p_{ireg} < p_{imax}$ for all i, j,

and where $$\sum_{i=1}^{n} p_{ireg} = p_{max}$$;

c) an optimum combination of power levels p_{ij}~~(B)~~ is selected in a demand determination step, as a function of an operating state B of the dishwasher ~~(110; 410)~~,

- where the selected power level p_{ij}~~(B)~~ for each i is matched to the power demand of the load element i ~~(14, 15, 18, 19, 22, 23, 26, 33; 418, 420, 432, 438)~~ in the operating state B, and

- where: $$\sum_{i=1}^{n} p_{ij}(B) \leq p_{max}$$, for all operating states B; ~~and~~

d) the electrical power of each load i in the group of n electrical load elements ~~(14, 15, 18, 19, 22, 23, 26, 33; 418, 420, 432, 438)~~ is set to the power level p_{ij}~~(B)~~, with the maximum power level p_{imax} being assigned, at least during one of the operating

states of the dishwasher ~~(110; 410)~~, to at least one load element ~~(14, 15, 18, 19, 22, 23, 26, 33; 418, 420, 432, 438)~~ in the group of n electrical load elements ~~(14, 15, 18, 19, 22, 23, 26, 33; 418, 420, 432, 438)~~; and

in a load regulation phase, at least one load element r, where $r \in \{1,...,n\}$ and which influences at least one operating state variable, which differs by more than a predetermined tolerance from a nominal value thereof, is operated at a power level which differs from its regular power level p_{rreg}, until the at least one operating state variable once again assumes a value which differs by not more than the predetermined tolerance from its nominal value.

2. (currently amended) The method as claimed in ~~the preceding~~ claim 1, characterized in that a power level p_{ik} exists for each electrical load i ~~(14, 15, 18, 19, 22, 23, 26, 33; 418, 420, 432, 438)~~, where $0 < k \leq m_i$ and where $p_{ik} = 0$.

3. (previously presented) The method as claimed in claim 1, characterized in that $m_i = 3$ for all i.

4. (currently amended) The method as claimed in claim 1, characterized in that the following method steps are additionally carried out:

e) the dishwasher ~~(110; 410)~~ is started, as a result of which a starting phase begins;

f) at least one temperature of at least one washing liquid, ~~in particular a temperature of water in at least one water tank (13, 17, 21; 416, 426) and/or water circuit,~~ is detected;

g) the at least one washing liquid is heated,

- where at least one heating element ~~(14, 18, 22, 26; 418, 432)~~ which heats the washing liquid and forms the load element l where $l \in \{1,...,n\}$ is operated at the maximum power level p_{lmax} associated with this heating element ~~(14, 18, 22, 26; 418, 432)~~, and
- where at least one load element q ~~(14, 15, 18, 19, 22, 23, 26, 33; 418, 420, 432, 438)~~ which is not the same as the heating element ~~(14, 18, 22, 26; 418, 432)~~ and where $q \in \{1,...,n\}$ and $q \neq 1$ is operated at a lower power than the regular power level

p_{qreg} associated with this load element q ~~(14, 15, 18, 19, 22, 23, 26, 33; 418, 420, 432, 438)~~; and

h) as soon as the at least one temperature of the at least one washing liquid has reached or exceeded a predetermined nominal value, a switched-on phase is started,

- where the power of all the load elements i ~~(14, 15, 18, 19, 22, 23, 26, 33; 418, 420, 432, 438)~~ is set to the respectively associated regular power level p_{ireg}.

5. (currently amended) The method as claimed in ~~the preceding~~ claim 4, having the following additional ~~step~~ steps:

i) at least one operating state variable is detected;

j) at least one operating state variable is allocated a nominal value; and

k) as soon as the value of the at least one operating state variable differs from the respectively associated nominal value by more than a predetermined tolerance, a load regulation phase is started.

6. (canceled)

7. (currently amended) The method as claimed in claim 1, characterized in that, in method step c), each load element ~~(14, 15, 18, 19, 22, 23, 26, 33; 418, 420, 432, 438)~~ is allocated a priority, and in that the optimum combination of the power levels pij(B) is determined taking into account the priorities of the load elements ~~(14, 15, 18, 19, 22, 23, 26, 33; 418, 420, 432, 438)~~.

8. (currently amended) The method as claimed in ~~the preceding~~ claim 7, characterized in that heating elements ~~(14, 18, 22; 418, 432)~~ which heat washing liquid, ~~in particular water in at least one water tank (13, 17, 21; 416, 426) and/or water circuit,~~ is allocated a higher priority than other loads.

9. (currently amended) The method as claimed in claim 1, characterized in that all of the operating states B are characterized by an operating phase variable F and/or by a plurality of operating state variables,

- where the operating state variable F can assume at least three discrete values (F_1, F_2, F_3),
- where F_1 denotes a starting phase for operation of the dishwasher ~~(110; 410)~~,
- where F_2 denotes a switched-on phase for operation of the dishwasher ~~(110; 410)~~, and
- where F_3 denotes the load regulation phase for operation of the dishwasher ~~(110; 410)~~.

10. (currently amended) An apparatus for energy-saving operation of a dishwasher ~~(110; 410)~~, ~~in particular for washing dishes (9; 414) or medical appliances~~, with the dishwasher ~~(110; 410)~~ having a total number $N \geq 2$ of electrical load elements ~~(14, 15, 18, 19, 22, 23, 26, 33; 418, 420, 432, 438)~~, having:

a) means ~~(310)~~ for assignment of a maximum electrical total power p_{max} to a group of n electrical load elements ~~(14, 15, 18, 19, 22, 23, 26, 33; 418, 420, 432, 438)~~;

b) means ~~(310, 332, 334, 336, 338, 340; 452, 454, 456, 458)~~ for assignment of a finite number m_i of discrete electrical power levels p_{ij} to each electrical load element i in the group of n electrical load elements ~~(14, 15, 18, 19, 22, 23, 26, 33; 418, 420, 432, 438)~~,

- with there being a maximum power level p_{imax} for each i, where $p_{ij} \leq p_{max}$,
- where the sum of all maximum power levels p_{imax} form a worst total power $p_{worst} = \sum_{i=1}^{n} p_{imax}$ where $p_{max} < p_{worst}$, and
- where a regular power level p_{ireg} exists for each i, where $0 < p_{ireg} < p_{imax}$ for all i, j, and where $\sum_{i=1}^{n} p_{ireg} = p_{max}$;

c) means ~~(310)~~ for selection of an optimum combination of power levels p_{ij}~~(B)~~, as a function of an operating state B of the dishwasher ~~(110; 410)~~,

- where the selected power level p_{ij}~~(B)~~ for each i is matched to the power demand of the load element i ~~(14, 15, 18, 19, 22, 23, 26, 33; 418, 420, 432, 438)~~ in the operating state B, and

- where: $\sum_{i=1}^{n} p_{ij}(B) \leq p_{max}$, for all operating states B; ~~and~~

d) means ~~(310, 322, 324, 326, 328, 330, 332, 334, 336, 338, 340; 444, 446, 448, 450, 452, 454, 456, 458)~~ for setting the electrical power of each load i ~~(14, 15, 18, 19, 22, 23, 26, 33; 418, 420, 432, 438)~~ in the group of n electrical load elements ~~(14, 15, 18, 19, 22, 23, 26, 33; 418, 420, 432, 438)~~ to the respective power level $p_{ij}(B)$, with the maximum power level p_{imax} being assigned, at least during one of the operating states of the dishwasher (110; 410), to at least one load element ~~(14, 15, 18, 19, 22, 23, 26, 33; 418, 420, 432, 438)~~ in the group of n electrical load elements ~~(14, 15, 18, 19, 22, 23, 26, 33; 418, 420, 432, 438)~~; and

means for operation of at least one load element r, where $r \in \{1,...,n\}$ which influences at least one operating state variable, which differs by more than a predetermined tolerance from a nominal value thereof at a power level, which differs from its regular power level p_{rreg}, in the load regulation phase, until the at least one operating state variable once again assumes a value which differs from its nominal value by not more than the predetermined tolerance.

11. (currently amended) The apparatus as claimed in ~~the preceding~~ claim 10, additionally having:

e) means ~~(310)~~ for starting ~~the~~ dishwasher ~~(110; 410)~~ by which ~~means a~~ starting phase is started;

f) means ~~(318, 320)~~ for detection of at least one temperature of at least one washing liquid~~, in particular a temperature of water in at least one water tank (13, 17, 21; 416, 430) and/or water circuit~~;

g) at least one heating element ~~(14, 18, 22, 26; 418, 432)~~, which heats the at least one washing liquid and forms the load element l ~~(14, 15, 18, 19, 22, 23, 26, 33; 418,~~

~~420, 432, 438)~~ where $l \in \{1,...,n\}$, as well as means ~~(322, 324, 326, 328; 448, 450)~~ for operation of the at least one heating element ~~(14, 18, 22, 26; 418, 432)~~ at the maximum power level p_{lmax} associated with this heating element, as well as means ~~(322, 324, 326, 328, 330; 444, 446, 448, 450)~~ for operation of at least one load element q ~~(14, 15, 18, 19, 22, 23, 26, 33; 418, 420, 432, 438)~~, which is not the same as the at least one heating element, where $q \in \{1,...,n\}$ and $q \neq 1$ at a lower power than the regular power level p_{qreg} associated with this load element q ~~(14, 15, 18, 19, 22, 23, 26, 33; 418, 420, 432, 438)~~; and

h) means ~~(310)~~ for starting a switched-on phase as soon as the at least one temperature of the at least one washing liquid has reached or exceeded a predetermined nominal value,

- where the power of all the load elements i ~~(14, 15, 18, 19, 22, 23, 26, 33; 418, 420, 432, 438)~~ is set to the respectively associated regular power level p_{ireg}.

12. (currently amended) The apparatus as claimed in ~~the preceding claim~~ claim 11, additionally having:

i) means ~~(318)~~ for detection of at least one operating state variable;

l) means ~~(310)~~ for assignment of in each case one nominal value to at least one operating state variable; and

m) means ~~(310)~~ for starting a load regulation phase as soon as the value of the at least one operating state variable differs by more than a predetermined tolerance from the respectively associated nominal value.

13. (canceled)

14. (currently amended) The apparatus as claimed in ~~claim 1~~ claim 10, characterized in that the means c) ~~(310)~~ for selection of an optimum combination of power levels p_{ij}~~(B)~~ have means ~~(310)~~ for allocation of a priority to each load element ~~(14, 15, 18, 19, 22, 23, 26, 33; 418, 420, 432, 438)~~ as a function of an operating state B of the dishwasher ~~(110; 410)~~, where the optimum

combination of the power levels pij~~(B)~~ is determined taking into account the priorities of the load elements ~~(14, 15, 18, 19, 22, 23, 26, 33; 418, 420, 432, 438)~~.

15. (currently amended) The apparatus as claimed in ~~claim 1~~ claim 10, characterized in that the dishwasher is a multiple tank dishwasher ~~(110)~~.

16. (currently amended) The apparatus as claimed in ~~claim 1~~ claim 10, characterized in that the means b) ~~(310, 332, 334, 336, 338, 340; 452, 454, 456, 458)~~ for assignment of a finite number mi of discrete electrical power levels pij to each electrical load element ~~(14, 15, 18, 19, 22, 23, 26, 33; 418, 420, 432, 438)~~ and/or the means c) ~~(310)~~ for selection of an optimum combination of power levels pij~~(B)~~ as a function of an operating state B of the dishwasher ~~(110; 410)~~ have/has a look-up table ~~(314)~~ and/or an electronic table.

17. (currently amended) A computer program having computer-readable program ~~code means in order to carry~~ code, which, when executed, carries out a method as claimed in claim 1, when the computer program is run on a computer ~~(310)~~ or a computer network.

18. (currently amended) A computer program having program code ~~means~~ as claimed in ~~the preceding~~ claim 17, which program code ~~means are~~ is stored on a computer-legible data storage medium ~~(314)~~.

19. (new) A computer program stored on a computer-readable data storage medium, the program, when executed, causing a computer to carry out the method recited in claim 4.